Comments to 2011 Technical Panel Recommendations

CHAPTER 1. METHODOLOGY

1.1 Presentation of Uncertainty

Presentation Recommendation P-1. The Technical Panel recommends expanding the list of key assumptions in Summary Table II.C.1 to include missing drivers of long-run Social Security finances. In addition, as warranted, the Technical Panel recommends presenting the values for key assumptions in a way that is useful to readers. Improved communication will likely involve reporting values for "indicator" variables that are directly determined by the more precise (but not easily interpretable) basic assumptions. **(The Trustees made changes in line with the Panel's suggestions – compare Table II.C1 of the 2013 Trustees Report with Table 3 on page 14 of the Technical Panel Report.)**

Presentation Recommendation P-2. The Technical Panel recommends removing the current presentation of uncertainty from the Summary (Chapter II) and from the section on Long-Run Actuarial Estimates (Chapter IV) and recommends replacing the uncertainty discussion in the Summary chapter with sensitivity analysis for each of the key drivers of system finances. **(Trustees support the current placement.)** In addition, the Technical Panel recommends basing the selection of the low- and high-cost values for key assumptions on consistency – in a probabilistic sense – both across and within assumptions. In other words, it is essential to make certain that the low- and high-cost values for any given variable are equally likely alternatives with respect to the intermediate alternative, even if this implies an asymmetric range between the intermediate and the high- and low-cost assumptions. Further, the Technical Panel recommends ensuring that the likelihood of realizations within the range of outcomes is the same across all key assumptions. **(Agree to work toward this goal. However, the underlying distributions of key assumptions are unknown.)**

Presentation Recommendation P-3. The Technical Panel recommends adding a chapter on uncertainty that explains, compares, and contrasts the high- and low-cost scenarios with integrated scenarios and stochastic simulation. The Technical Panel also recommends emphasizing that sensitivity analysis is the starting point for every measure of overall uncertainty and noting that any overall measure of uncertainty involves varying the combinations of key assumptions in particular ways. Each scenario and stochastic approach should be presented in a comparable way, specify how the key assumptions vary in each measure of overall uncertainty, and discuss the impact on various measures of system financial outcomes. **(The Trustees did not change the placement and emphasis of the different ways of presenting uncertainty.)**

1.2 Actuarial Metrics

Method Recommendation M-1. The Technical Panel recommends providing micro-level (individual) financial measures of the Social Security system in conjunction with macro-level

(program-wide) financial measures of the system. (**Trustees do not support the additional information in the highlight section of the report - see first bullet in first column of page 31 of Technical Panel Report. The primary purpose of the Trustees Report is to discuss the actuarial status of the Trust Funds. For the 2012 Report, the Trustees moved the scheduled benefit estimates and replacement rates for various hypothetical workers to the Body of the Report – section V.C10. These estimates were in the Appendix in the 2011 Report.) For the 2014 Trustees Report, the Trustees removed benefit replacement rates and added the average wage indexing series (AWI) for comparison to benefit levels, with benefit levels and the AWI expressed in CPI-indexed dollars.**

Method Recommendation M-2. The Technical Panel recommends adding a subsection to Chapter IV, Section B of the Trustees Report that provides more discussion and analysis of sustainable solvency. **(See bullets in last column of page 31 and on page 32 for various examples from the Technical Panel Report. Reports after the 2011 Report contain additional words regarding the discussion and analysis of sustainable solvency. OCACT believes the current discussion is now sufficient.)**

Method Recommendation M-3. If the Trustees accept Recommendation M-2, then the Technical Panel recommends eliminating the Infinite Horizon metric. **(Trustees concluded to maintain the current presentation of this metric. OCACT agrees that projections for more distant years are increasingly uncertain. For the 2014 Report, the Trustees moved the infinite horizon discussion that was in the body of the report to an appendix.)**

1.3 Models and Methods

Method Recommendation M-4. The Technical Panel commends OCACT for its progress in increasing the transparency of its methods and in communicating detailed information to policymakers and the research community through its web site. The Technical Panel recommends maintaining and expanding these efforts in the coming years. **(OCACT added historical values to single-year tables on its web site. Recently, OCACT added downloadable files, which hold probabilities of death by age, gender, and year. As resources allow, OCACT will continue to expand information on its web site.)**

Method Recommendation M-5. The Technical Panel commends the Social Security Administration (SSA) for investing in the development of matched data files that link survey information with administrative records on earnings and benefit receipt. The Technical Panel recommends making continued investments a high priority. **(OCACT agrees. However, our agency is facing budget cuts and must judge work priorities. The Office of Retirement and Disability Policy is responsible for the creation and maintenance of these records.)**

Method Recommendation M-6. The Technical Panel recommends that SSA develop a strategic plan for expanding its dynamic microsimulation capacity and for integrating its segmented and microsimulation strategies. One objective of the strategic plan should be to increase coordination of dynamic microsimulation efforts within SSA in order to maximize existing resources. The

Technical Panel recommends that the Social Security Advisory Board monitor progress on the development of these plans. The Board should consider convening or hosting a regular series of meetings of model developers within SSA and across various government agencies to review innovations, challenges, and prospects for collaboration. In deciding how to allocate scarce modeling resources, the Technical Panel recommends assigning a high priority to policies with potentially significant but uncertain effects on OASDI's fiscal position. **(OCACT continues to work on POLISIM to enhance estimates of policy changes. In addition, OCACT continues to coordinate with developers within SSA and across various government and non-government agencies. SSA's Office of Retirement and Disability Policy maintains the MINT model and develops distributional analysis for legislative proposals in conjunction with OCACT. OCACT also provides estimates of effects on benefit levels for illustrative workers for many legislative proposals.)**

Method Recommendation M-7. The Technical Panel recommends basing the intermediate projection of revenues from taxation of OASDI benefits more closely on the current income tax code rather than on historical shares of income subject to federal income taxation. The Technical Panel also recommends basing the projections of OASDI's long-range actuarial status on two alternative sets of assumptions about future taxation that are analogous to "current law"/"extended baseline" and "current policy"/"alternative fiscal" scenarios, as is the practice of other government and private forecasting groups. At a minimum, the Technical Panel strongly recommends adding sensitivity analyses to the Trustees Report to demonstrate how projections of the long-range financial status of the OASDI program vary with alternative assumptions about laws governing personal income tax. **(For the first 10 projection years, OCACT uses projections of revenue effects from taxation of benefits reflecting current law (with "bracket creep"), developed with input from the Office of Tax Analysis at the Department of the Treasury. Thereafter, projected revenue effects reflect no further bracket creep in IRS tax structure, but do reflect implications of the fixed dollar thresholds for taxing benefits. This approach is consistent with the historical record where periodic ad hoc adjustment to IRS tax structure, outside the Social Security Act, offset the potential long-term effects of bracket creep. Trustees do not support including the additional projections in the Trustees Report.)**

1.4 Implications of Health Care Reform

Assumption Recommendation A-1. The Technical Panel recommends increasing the range of uncertainty around the major assumptions, including those regarding labor force participation and the earnings ratio, that are likely to be affected by health care reform. The expanded range reflects the uncertainty inherent in how health care reform will unfold. Over time, the extent of uncertainty is likely to narrow, at which point the recommended ranges for the affected assumptions will lend themselves to reduction. **(OCACT believes that health care reform is not likely to have a substantial effect on labor force participation or the earnings ratio (ratio of earnings to compensation). Any effect on either of these economic variables would be highly speculative. For other reasons, however, beginning with the 2012 Report, the Trustees introduced additional variation from the intermediate assumption in the ultimate**

ratio of taxable to covered earnings. In addition, OCACT will review increasing the range for labor force participation.)

Research Recommendation R-1. The Technical Panel recommends research into the impacts of health care reform on relevant outcomes as reform provisions start to take effect. Such outcomes include labor force participation, disability receipt, the earnings ratio, the taxable share, and mortality. The research findings should help determine the need for changes to the relevant assumptions and the need for adjustments to the range of uncertainty. **(OCACT sees possibilities for both positive and negative effects of health reform on disability rates and on longevity. Subsequently, OCACT discussed these possibilities with others, including the Trustees and their staff. So far, OCACT is comfortable with including no explicit net effects of health reform in these assumptions. To the extent possible, OCACT agrees with monitoring these effects as the reform unfolds. However, given the ACA is being implemented throughout the nation, it will be difficult to isolate the effect of this change.)**

CHAPTER 2. DEMOGRAPHIC ASSUMPTIONS AND METHODS

2.1 Fertility

Assumption Recommendation A-2. The Technical Panel recommends retaining the intermediate total fertility rate assumption of 2.0 from the 2011 Trustees Report. The Technical Panel also recommends low- and high-cost total fertility rates of 2.2 and 1.6, respectively. We agree with previous Technical Panels that asymmetry in the range between the intermediate- and low- and high-cost values is appropriate, although our current estimate of such asymmetry is modest. **(The Trustees have not changed the ultimate fertility assumptions. However, this recommendation is still being considered.)**

Section 2.2 Mortality

Presentation Recommendation P-4. The Technical Panel recommends summarizing the assumptions about future mortality in terms of life expectancy at birth at the end of the projection period rather than in terms of the average annual percentage reduction in total age- and sex-adjusted death rates. **(The Trustees have both measures in the Report. For the summary in Table II.C1, the Trustees use average annual percentage reduction. OCACT believes this is a better summary measure for mortality because it places weight on changes in mortality at all ages in proportion to the share of deaths that occur at each age. Life expectancy at birth is affected disproportionately by death rates at birth and younger ages, thereby providing a misleading measure of change in mortality over time. Mortality at older ages contributes much more significantly to the projected cost of Social Security and Medicare. Reductions in death rates at younger ages affect the costs (as percent of payroll or GDP) in the opposite direction from reductions in death rates at older ages. Where life expectancy is presented for analytic purposes of Social Security, expectancy at age 65 is more useful than expectancy at birth.)**

Method Recommendation M-8. The Technical Panel recommends simplifying the mortality projection model by eliminating separate projections by cause of death **(For the 2012 Report, the Trustees decreased the number of causes of death from seven to five. The four specific causes of death categories (the fifth category being "all other causes") often correlate with specific behavior[1] and aid in developing ultimate rates of mortality decline. In addition, the Trustees now assume: (1) the ultimate male and female rates of mortality improvement are equal; and (2) ultimate rates of mortality improvement for the low-cost and high-cost alternative are factors of the intermediate rates. The changes for the 2012 Report reduced the total number of mortality assumptions from 210 to 27. OCACT believes that use of differential assumptions by cause of death is an essential component of projecting overall mortality. This approach also allows OCACT to consider informed opinions from medical practioners and researchers.)**

[1] For example, respiratory disease correlates with smoking.

Assumption Recommendation A-3. The Technical Panel recommends increasing the intermediate life expectancy assumption to 88.7 years in 2085, which is 3.7 years higher than the 2011 Trustees Report's assumption of 85.0 years. The Technical Panel also recommends low- and high-cost assumed life expectancies of 83.7 and 93.7 years. The difference between these low- and high-cost assumptions is 10 years (93.7 minus 83.7 years) compared with 7.7 years in the 2011 Trustees Report; this range reflects the high degree of uncertainty about future mortality trends and the lack of agreement among experts about such trends. **(Irrespective of how the Reports present mortality projections, the Trustees and OCACT support the current approach of projecting mortality, which is to analyze the historical data and project future trends in terms of the rate of mortality decline. The current method of extrapolating past trends and using ultimate assumptions in determining mortality improvement results in a declining rate of mortality improvement. Mortality improvements have varied widely over different historical periods due to *many* factors. OCACT believes many factors will continue to impact mortality improvement in the future. The current approach in determining the mortality assumptions considers historical rates of improvement by age, sex, and causes of death, the factors contributing to those improvements, and expected future changes in those factors. In contrast, the Technical Panel's recommendation specifies only a life expectancy at birth for the 75th year of the projection period. When asked about the age and sex groupings, which are essential in developing financial estimates, the Advisory Board staff instructed OCACT to use the same rate of improvement for all ages and both sexes. Historically, rates of reduction in death rates by age and sex are very different for various reasons. In addition, analyzing past and potential future mortality improvement using life expectancy at birth is very misleading. Reductions in mortality at birth and in early years of life have far greater impact on life expectancy at birth than do reductions at higher ages. Over the past century, mortality reductions at low ages were dramatic and resulted in large increases in life expectancy at birth. Because mortality at low ages is now very low, future gains in mortality will be concentrated at higher ages, which have less effect on life expectancy at birth but have substantial effect on OASDI cost.)**

Section 2.3 Immigration

Assumption Recommendation A-4. The Technical Panel recommends that immigration scenarios should tie the level of net immigration to historical evidence on net immigration and population size rather than decreasing or increasing constant numbers of immigrants. The Technical Panel recommends that the Trustees express their ultimate net migration assumptions as rates of the annual number of net migrants divided by population size. **(The Trustees do not support tying the level of net immigration to population size. OCACT believes that specifying separate annual flows of immigration and emigration is far superior to specifying net annual flows. In particular, the age distributions for immigrants is very different from that of emigrants so simply modeling net immigration would not allow for appropriate modeling of the immigrant population. OCACT believes these annual flows should be broken out between legal permanent residents (LPR) and non-LPR and include those who transfer status from non-LPR to LPR. In addition, current law has annual numerical limits on all categories of legal permanent residents except for immediate**

relatives and refuges/asylees. There does not seem to be a compelling basis for assuming that immigration legal limits or undocumented immigrant flows will rise as the population increases. In fact, these immigration flows could even decrease depending on the relative economic opportunity in the U.S. compared to other nations.)

Assumption Recommendation A-5. The Technical Panel recommends making the assumptions regarding future immigration more consistent with long-range historical averages for earlier periods. Specifically, the Technical Panel recommends that the intermediate assumption should ultimately be 3.2 net migrants per 1,000 persons. The Trustees' current intermediate assumptions about net legal and net other immigrants in 2015 and assumptions about increases for 2015 through 2025 may be appropriate based on current evidence, but the Technical Panel believes that net immigration levels beyond 2025 will not decline as reflected in the ultimate assumption for the remainder of the projection period. The Technical Panel also recommends that the low- and high-cost assumptions should ultimately be 4.2 and 2.2 net migrants, respectively, per 1,000 persons. . **(The Trustees do not support this recommendation. OCACT also disagrees with this approach. OCACT believes in specifying annual flows of immigration and emigration, rather than net numbers of annual flows. OCACT believes these annual flows should be broken out between legal permanent residents (LPR) and non-LPR and include those who transfer status from non-LPR to LPR. Also, current law has annual numerical limits on all categories of legal permanent residents except for immediate relatives and refuges/asylees.)**

Section 2.4 Disability

Assumption Recommendation A-6. The Technical Panel recommends increasing the age-sex-adjusted disability incidence rate to 5.8 per 1,000 insured workers, with somewhat larger increases for women and smaller increases for men; this is higher than the 5.2 per 1,000 rate assumed in the 2011 Trustees Report. The Technical Panel also recommends low- and high-cost disability incidence rates of, respectively, 4.8 and 6.9. **(For the 2012 Trustees Report, the Trustees increased incidence rates after reviewing historical incidence rates by 5-year age group and sex. The age-sex-adjusted disability incidence rate is now 5.4 per 1,000 insured workers. This assumption will be monitored as experience unfolds. It is worth noting that incidence rates were lower than those expected based on the 2013 Trustees Report, resulting in slightly lower incidence rates for the near term in the 2014 Trustees Report.)**

Assumption Recommendation A-7. The Technical Panel recommends a more rapid decline in DI mortality rates for both men and women from 2020 through 2030 than is currently assumed. The effect of the recommended reduction on the age-adjusted mortality rate for men is a 15.7 percent lower mortality rate from 2030 through 2085; for women, it is a 14.3 percent lower mortality rate during the same period. The recommended intermediate age-adjusted DI mortality rate for men in 2085 is 11.10 per 1,000 DI beneficiaries, which is lower than the currently assumed mortality rate of 13.20. The recommended intermediate age- adjusted DI mortality rate for women in 2085 is 8.20 per 1,000 DI beneficiaries, which is lower than the currently assumed mortality rate of 9.57. The recommended total age-sex-adjusted mortality rate in 2085 is 9.86, which is 13.7 percent lower than the currently assumed 11.42. The Technical Panel also recommends ultimate low- and high-cost total age-sex-adjusted mortality rates of, respectively,

17.10 and 6.30. **(OCACT will continue to review these levels against historical values. The age distribution of disability incidence and the resulting distribution by duration of disability by age, as well as changes in the nature of disabling conditions, affect the relative reduction in mortality for disabled beneficiaries (compared to the general population.)**

Assumption Recommendation A-8. The Technical Panel recommends reducing the assumed DI medical recovery rate from the currently assumed rate of 10.9 per 1,000 DI beneficiaries to 8.7 per 1,000 DI beneficiaries. The Technical Panel also recommends an increase in the range of uncertainty about the medical recovery rate, with low- and high-cost values of, respectively, 11.4 and 6.0 relative to the currently assumed low- and high-cost values of, respectively, 13.2 and 8.7. **(For the 2013 Report, the Trustees lowered the intermediate assumption to 10.4 per 1,000 DI beneficiaries. This ultimate level of medical recoveries is consistent with historical levels and expected future program administration. Rates of termination for medical recovery have been depressed in recent years by restricted funding for continuing disability reviews (CDRs). Over the longer term, adequate funding for such reviews is assumed based on the Budget Control Act and an increased recognition of the costs of "improper payments".)**

Method Recommendation M-9. The Technical Panel recommends expanding the discussion of the factors leading to the projected decline in the share of DI-insured men and careful monitoring of the share to see if the recent declines among younger men carry forward to men at older ages. The Technical Panel notes that similar discussion and monitoring are warranted given the projection that the steady rise in the share of DI-insured women will level off in the short term. **(OCACT agrees. Additionally, the 2013 Report considered the effect of changes in non-LPR population as a major driver on DI insured rates, particularly for younger men.)**

Method Recommendation M-10. The Technical Panel recommends exploring in greater depth the effect of diagnoses of DI recipients on program exit rates because of medical recovery or death. The Technical Panel recommends similar exploration for the projected share exiting DI because of conversion to retired worker benefits. **(OCACT agrees, and has been pursuing evaluation of incidence by diagnostic group. OCACT will also explore implications for recoveries and death by cause of disability as data and resources allow.)**

Presentation Recommendation P-5. The Technical Panel recommends presenting more detail on the programmatic, economic, and health factors that drive DI applications and how the factors are assumed to change in the future. **(OCACT agrees. Since 2011, OCACT analyzed and presented historical programmatic, economic, and health factors that drive DI incidence. OCACT will continue to pursue efforts in this area. In 2013, OCACT published Actuarial Note #153 that explores the effects of economic cycles on disability allowance rates.)**

CHAPTER 3. ECONOMIC ASSUMPTIONS AND METHODS

Section 3.1 Labor Force Participation Rate

Method Recommendation M-11. Consistent with Recommendation P-1, the Technical Panel recommends characterizing labor force participation rates as a basic assumption with a meaningful range of uncertainty. Labor force participation rates should also be part of the formal sensitivity analyses currently presented in Appendix D. **(The Trustees have not changed to this approach. However, this recommendation will continue to be considered.)**

Assumption Recommendation A-9. The Technical Panel recommends increasing the assumed labor force participation rates with intermediate values of 75.0 for men and 61.9 percent for women in 2085; these rates are higher than the currently assumed values of 72.9 percent for men and 60.8 percent for women. Together, the recommended values would raise the age-sex-adjusted labor force participation rate from 66.6 to 68.2 percent. The Technical Panel also recommends a substantial increase in the range of uncertainty about labor force participation, with low- and high-cost age-sex-adjusted participation rates of, respectively, 70.3 and 64.8 percent in 2085. **(The Trustees have not fundamentally changed the methods for projecting LFPRs. However, for the 2011 Trustees Report, OCACT did increase the elasticity of change in LFPR relative to increases in life expectancy assuming that reduced morbidity and perceived need for savings for extended retirement years would increase labor supply at higher ages. OCACT and the Trustees will continue to monitor these rates. OCACT notes that OMB projections for the Budget use lower labor force participation rates at higher ages than those used in the 2014 Trustees Report.)**

Method Recommendation M-12. The Technical Panel recommends moving toward a heuristic life-cycle approach for projecting labor force participation by age and sex. Ultimately, labor force participation should be driven by life-cycle–specific labor supply measures such as typical age of first entry, percentage of the working-age population in the labor force, age of primary job exit, and fraction of the retired population still working. The Technical Panel's recommended intermediate-, low-, and high-cost values above are based on consideration of labor force participation across eight age/sex groups and thus represent a move in the desired direction. **(The Trustees and OCACT did not make changes based on this recommendation. OCACT notes that many of the factors mentioned are included in the current model, including cohort effects.)**

Section 3.2 Real Wage Growth Rate

Assumption Recommendation A-10. The Technical Panel recommends retaining the productivity growth rate of 1.7 percent per year assumed in the 2011 Trustees Report. The Technical Panel also recommends retaining the currently assumed low- and high-cost values of 2.0 and 1.4 percent, respectively. **(OCACT and Trustees agree. However, these assumptions continue to be monitored.)**

Assumption Recommendation A-11. The Technical Panel recommends retaining the intermediate assumption of a 0.0 percent annual growth rate for the compensation share of GDP. The Technical Panel further recommends introducing uncertainty about this parameter. Specifically, starting from a current value of 54.5 percent for the compensation ratio, the Technical Panel recommends low- and high-cost values of, respectively, 56 and 53 percent over the projection period. Growth rates of, respectively, 0.1 and -0.1 percent per year for 25 years in the low- and high-cost scenarios would generate the suggested range in the compensation ratio. **(OCACT and Trustees agree with the ultimate intermediate recommendation of 0.0 percent annual growth rate. The Trustees have not introduced additional variation in the low-cost and high-cost scenarios. This recommendation will continue to be considered.)**

Assumption Recommendation A-12. The Technical Panel recommends setting the annual growth rate for the earnings to compensation ratio at 0.0 percent in the intermediate-cost scenario, an increase from the current assumption of -0.1 percent. The Technical Panel also recommends low- and high-cost annual growth rates of, respectively, 0.1 and -0.1 percent per year, which yield an ultimate range for the earnings to compensation ratio of 77 to 89 percent relative to a starting value of 83 percent. The adjustment for the effects of health care reform made in the 2010 Trustees Report (+0.1 percent per year) is reasonable and should be maintained, pending direct observation of the law's impact in the coming years. The Technical Panel's recommendation of an intermediate-cost assumption of 0.0 percent incorporates such adjustment. **(The Trustees intermediate assumption, which averages -0.1 percent per year, is consistent with the projected growth in health care expenditures by the Center for Medicare and Medicaid Services and with expected contributions to retirement plans.)**

Assumption Recommendation A-13. The Technical Panel recommends retaining the intermediate-cost assumption of 0.0 percent for the annual change in hours worked. For the low-cost scenario, the Technical Panel recommends a slight increase of 0.05 percent per year in hours worked over the 75-year period. Recognizing a greater risk of a decline in hours worked, the Technical Panel recommends a reduction in annual hours of -0.15 percent per year for the 75-year period in the high-cost scenario. **(For the 2012 Report, the Trustees now assume the Panel's recommended levels for the low cost and high cost scenarios. However, the Trustees decreased the ultimate annual change in hours worked to -0.05 percent. Reasons for the change in the ultimate average hours worked include: (1) establishing consistency with the projections of an aging workforce (current assumptions include an increasing share of employment at high ages where part time work is more prevalent); and (2) the belief that increasing productivity is likely to result in workers' desire to enjoy some of these productivity gains in the form of more leisure. In addition, historical data and trends support this reduction in the assumed average hours worked.)**

Assumption Recommendation A-14. The Technical Panel recommends reducing the magnitude of the intermediate-cost assumed GDP-CPI price differential to -0.2 percent per year, relative to the currently assumed -0.4 percent price differential. The Technical Panel also recommends low- and high-cost price differentials of -0.1 and -0.3 percent, respectively. **(The Trustees did not change this assumption. The historical and expected effect of chain weighting alone in the GDP deflator yields a differential of 0.3 percentage point. The differences in the composition of items included in the GDP versus the CPI explain the additional 0.1 percentage point.)**

Assumption Recommendation A-15. Taken together, the Technical Panel's recommendations A-10 through A-15 for productivity growth and the four linkages generate an intermediate real wage growth rate of 1.5 percent per year in years 25 through 75, with low- and high-cost values of, respectively, 2.05 and 0.85 percent. Over the first 25 years, our recommendations also generate an intermediate real wage growth rate of 1.5 percent, but with low- and high-cost values of, respectively, 2.15 and 0.75 percent per year. **(The real wage assumption derives from the assumed increases in productivity growth and the four linkages –see above for individual discussions of productivity growth and each linkage.)**

Section 3.3 Unemployment Rate

Assumption Recommendation A-16. The Technical Panel recommends retaining the assumed ultimate long-run unemployment rate of 5.5 percent from the 2011 Trustees Report. The Technical Panel also recommends retaining the low- and high-cost assumed unemployment rates of, respectively, 4.5 and 6.5 percent. **(OCACT and Trustees agree.)**

Section 3.4 Interest Rates

Assumption Recommendation A-17. The Technical Panel recommends reducing the assumed long-run real interest rate to 2.7 percent. The rate is lower than the 2.9 percent long-run real interest rate assumed in the 2011 Trustees Report and more in line with market-based forecasts derived from current yields on inflation-protected Treasury securities. The Technical Panel recommends retaining the low- and high-cost values of, respectively, 3.6 and 2.1 percent for the real interest rate. **(The Trustees have not changed this assumption. As the economy continues to recover, assumed real interest rates over the next several years are considerably lower than the ultimate assumption.)**

Method Recommendation M-13. The Technical Panel reiterates the recommendation of the 2007 Technical Panel that the approach to determining real and nominal interest rates should place greater weight on the forward-looking information in recent Treasury yield curves. **(OCACT and the Trustees place great weight on current and recent Treasury yields for the very near term assumptions. However, real interest rates are very sensitive to economic conditions. Current rates and conditions that are not expected to persist indefinitely should not have substantial effect on long-range ultimate assumptions. A review of the historical bond yield rates demonstrates the annual volatility in these rates, even for long-term bonds.)**

Section 3.5 Inflation

Assumption Recommendation A-18. The Technical Panel recommends retaining CPI-W inflation at 2.8 percent in the intermediate-cost scenario. The Technical Panel also recommends retaining the low- and high-cost values of, respectively, 1.8 and 3.6 percent. **For the 2014 Report, the Trustees lowered this assumption to 2.7 percent for the intermediate scenario. In addition, the Trustees switched the low- and high-cost values to be more consistent with**

the treatment of other assumptions (assigning low-cost and high-cost assumptions based on their effects on cost relative to payroll). The ultimate change in the CPI-W is now 3.4 percent for the low-cost assumption and 2.0 percent for the high-cost assumption.)

Assumption Recommendation A-19. The Technical Panel recommends setting the nominal interest rate to 5.5 percent in the intermediate-cost scenario, based on a 2.8 percent inflation rate and a 2.7 percent real interest rate. The Technical Panel also recommends a low-cost nominal interest rate of 5.4 percent (1.8 percent inflation plus 3.6 percent real interest rate) and a high-cost nominal interest rate of 5.7 percent (3.6 percent inflation plus 2.1 percent real interest rate). **(The nominal interest derives from the assumed real interest and inflation.)**

Section 3.6 Taxable Share of Covered Wages

Assumption Recommendation A-20. The Technical Panel recommends the brief continuation of the downward trend in the taxable share of covered wages as the economy fully recovers from the recession and then reaches an ultimate level of 82.2 percent. The Technical Panel also recommends significantly expanding the range of uncertainty around the taxable share given that the taxable share could continue to shift rapidly in the coming years. The Technical Panel recommends a low-cost value of 84.3 percent and a high-cost value of 80.0 percent, a range that is modestly asymmetric around the recommended intermediate value. **(For the 2012 Report, the Trustees assumed an ultimate level for the taxable payroll ratio under the intermediate assumptions (82.5 percent) that is close to the level recommended by the Technical Panel. In addition, the Trustees did introduce uncertainty around the taxable payroll ratio, but not to the degree recommended by the Technical Panel. The taxable payroll ratio is 81.0 percent for the high-cost assumptions (or about 1.50 percentage points lower than the intermediate assumptions) and is 84.0 percent for the low-cost assumptions (or about 1.50 percentage points higher than the intermediate assumptions).)**

Method Recommendation M-14. The Technical Panel recommends consideration of a formal linkage between the assumed earnings to compensation ratio and the taxable share. **(OCACT agrees to consider. However, this seems a low priority. For example, a decrease in the share of employee compensation paid in wages would lower the taxable maximum amount, as it is indexed to the average wage (AWI). If a flat amount of each wage earner's compensation were shifted away from wages, this would lower the taxable ratio, but not substantially. We do not see a formal connection here. This would require more assumptions that are less certain than the current simplified assumptions for taxable ratio and wage share of compensation.)**

Method Recommendation M-15. Consistent with Recommendation P-1, the Technical Panel recommends characterizing the taxable share as a basic assumption with a meaningful range of uncertainty. It should also be part of the formal sensitivity analyses currently presented in Appendix D. **(For the 2012 Report, the Trustees adopted an expanded range for the ultimate taxable ratio. Because this is a level change, and not a compounding growth rate, it has only a small effect on the results. OCACT does not see a need to expand sensitivity analysis for this factor.)**